



Swegon Room Unit Designer MagiCAD Cloud Plugin for Revit

13/04/2026

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1 General

This document contains instructions on using Swegon Room Unit Designer (=RUD) plugin for Revit and MagiCAD for Revit. The purpose of the plugin is to integrate Swegon RUD selection- and room visualization tool RUD into Revit and MagiCAD for Revit. It allows user to find and insert Swegon air diffusers and water products into Revit project. In addition, plugin integrates RUDs room designer functionalities into Revit project and MEP spaces allowing users to design the air distribution in rooms.

1.1 How to install plugin

1.1.1 Required third-party software

Swegon Revit plugin works with the following Revit and MagiCAD versions:

Revit

- Revit 2023 - 2026

MagiCAD for Revit (optional)

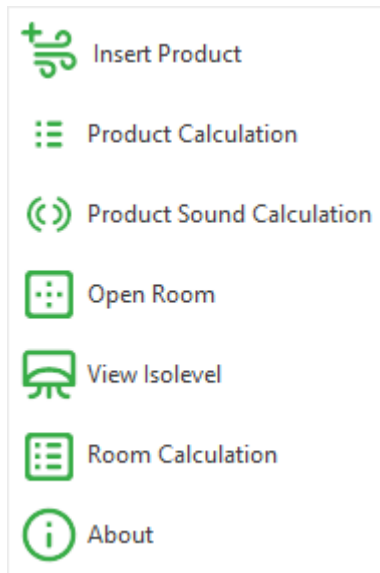
- MagiCAD for Revit 2026 with Revit 2024 - 2026
- MagiCAD for Revit 2027 with Revit 2025 - 2027

1.1.2 Installation

1. Download setup file from
<https://portal.magicad.com/download/ProductSearch?searchStr=Swegon&categoryId=3>
2. Install the plugin by running the downloaded installer

2 Starting the program

You will find Swegon RUD Revit plugin ribbon panel under MagiCAD Connect tab in Revit.



3 How to use the plugin

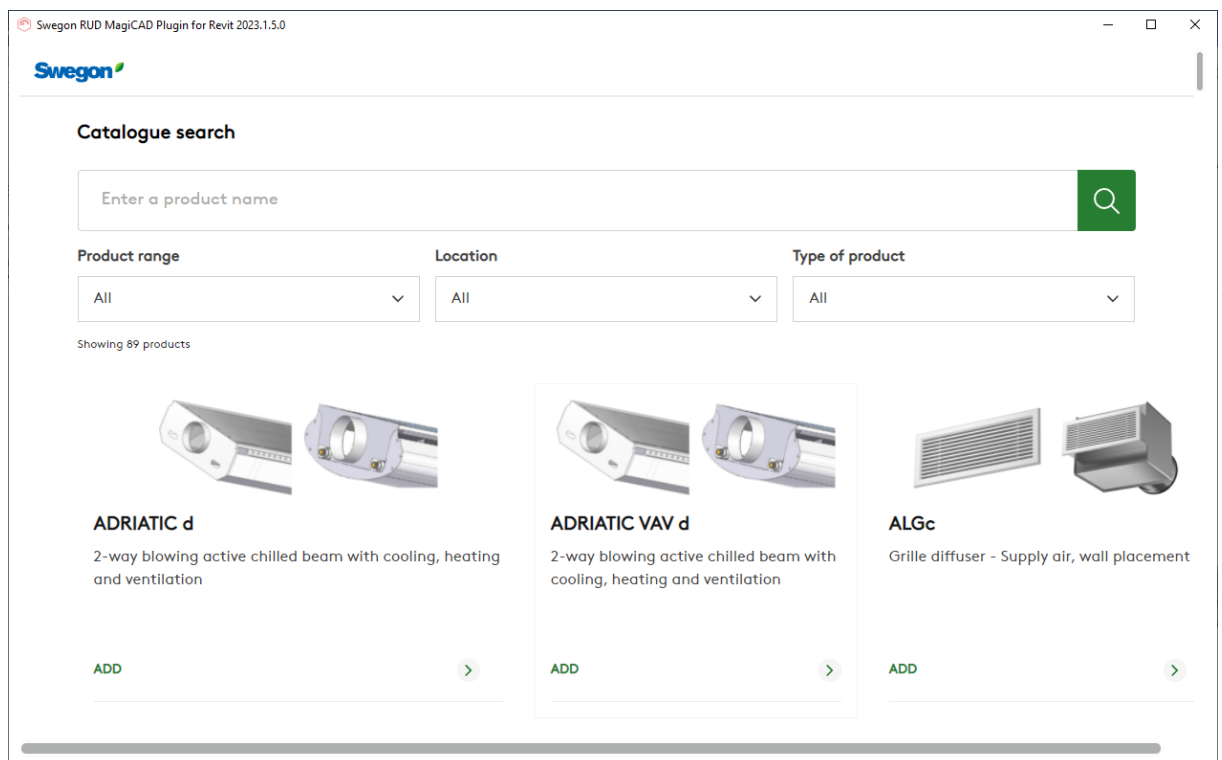
Swegon RUD Revit plugin contains 7 commands:

- Insert Product
- Product Calculation
- Product Sound Calculation
- Open Room
- View Isolevel
- Room Calculation
- About

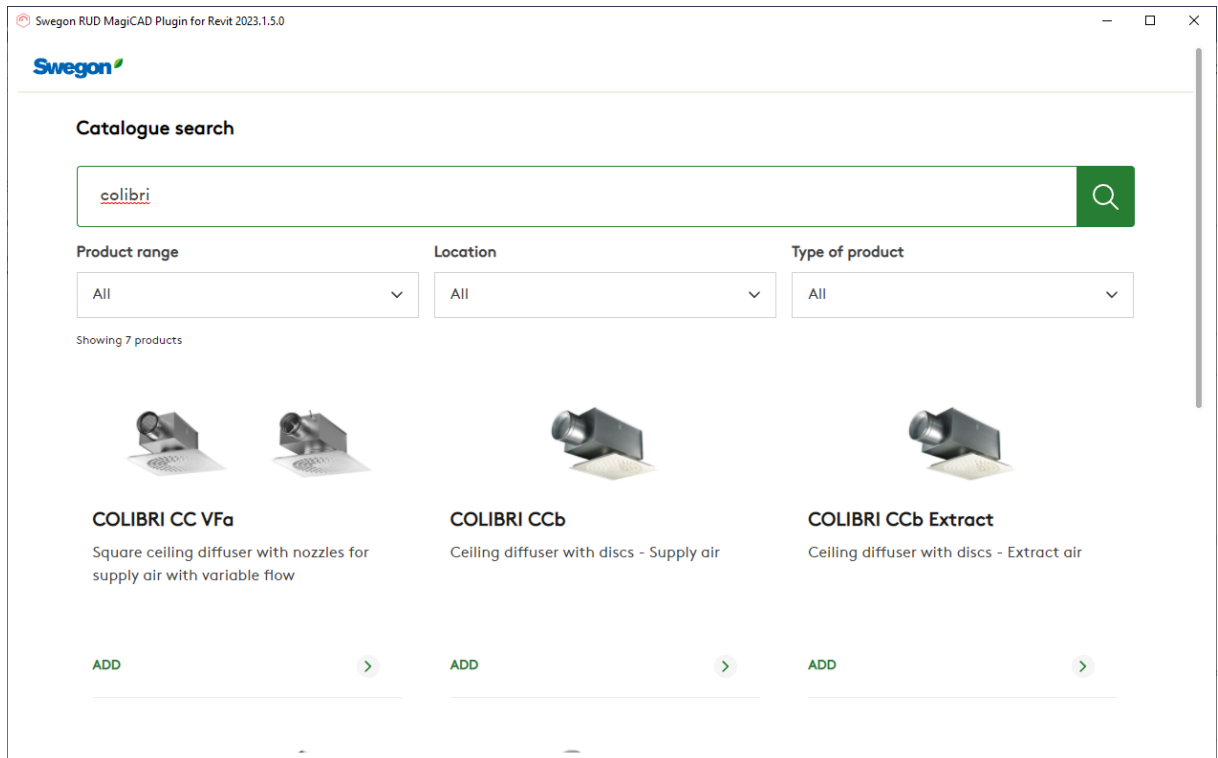
3.1 Insert Product

This command opens RUD for selecting suitable air diffuser or water products into Revit project. Follow these steps to insert products from RUD to Revitproject:

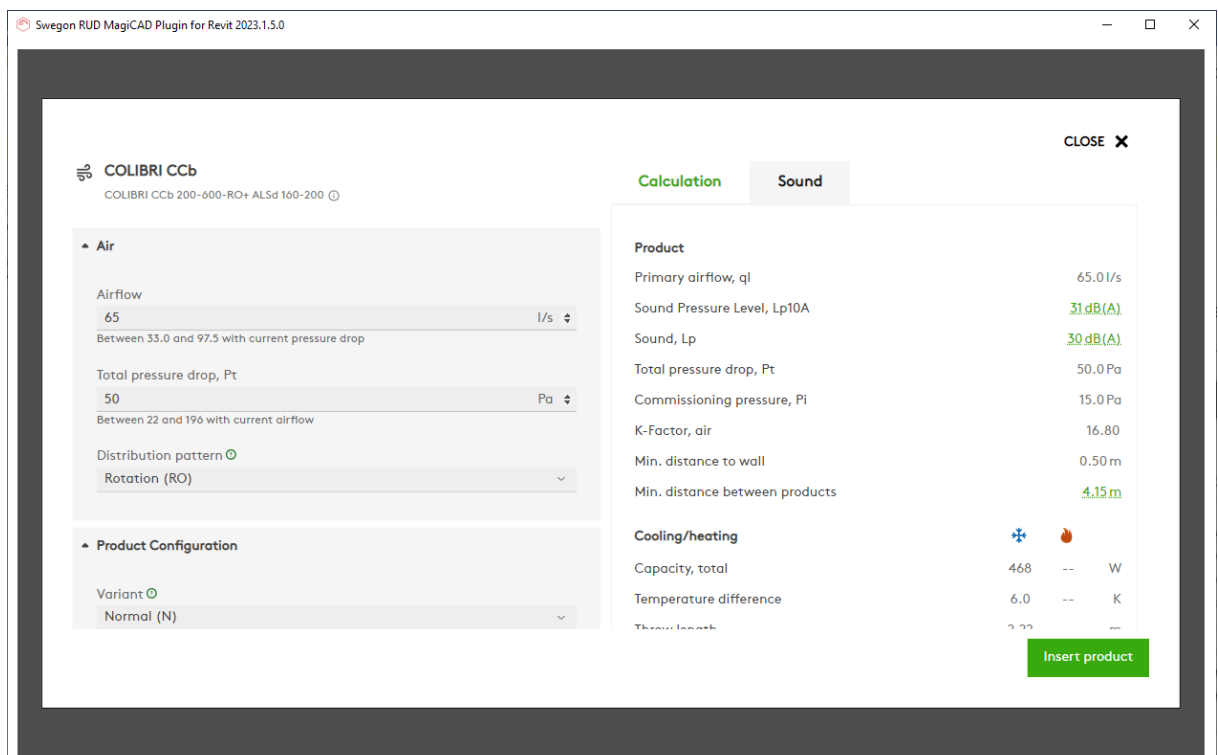
1. Click the “Insert Product” -button from Swegon RUD ribbon panel. Plugin opens RUD in browser control window:



2. Proceed by searching for the product by name or by using filtering options.

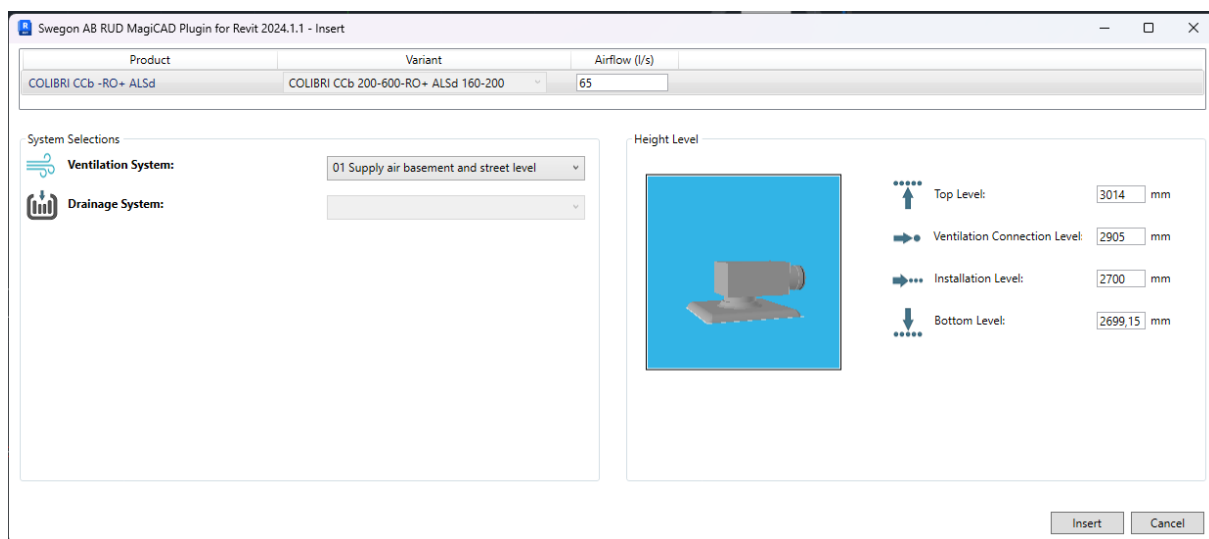


3. Click Add -button and then configure the product to match your needs:

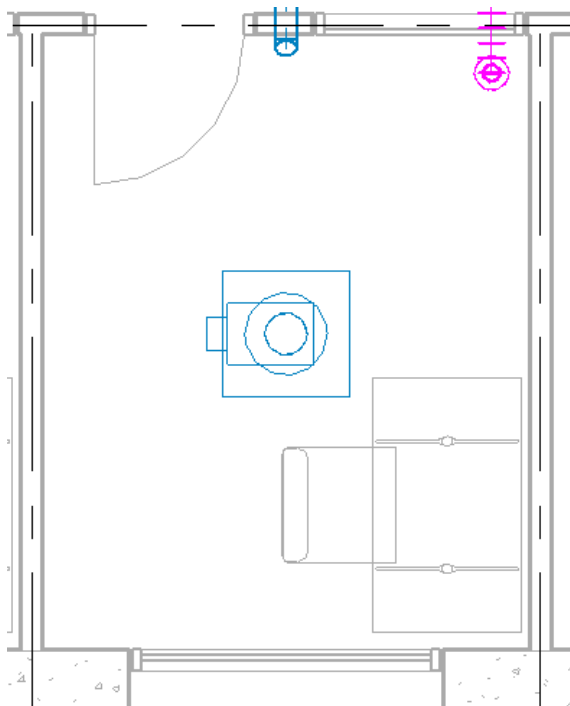


Once the product is configured click “Insert product” -button in order to initiate product insertion to Revit.

4. Plugins Insert Product view is opened:



From there you can make required system selections and set the height level for the product. After that click “Insert” -button in order to place to product to Revit project:

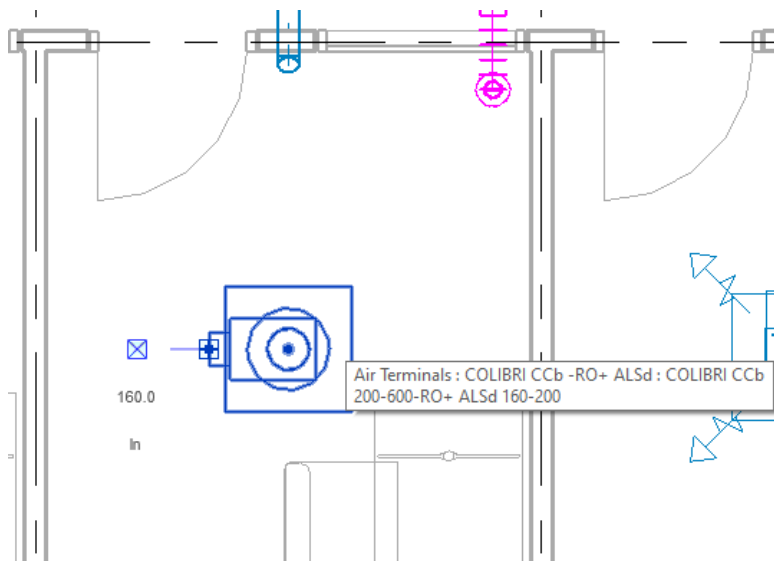


3.2 Product Calculation

This command allows user to view product calculation results in RUD.

Follow these steps to view the results:

1. Click the “Product Calculation” -button from Swegon RUD ribbon panel. User is requested to select the product which calculation results he/she wants to view. If there was already Swegon product selected in the drawing, it is automatically used as selected product.



2. Product Calculation results view is opened from RUD:

Swegon RUD MagiCAD Plugin for Revit 2023.1.5.0

1 products successfully decoded out of 1 products received from plugin.

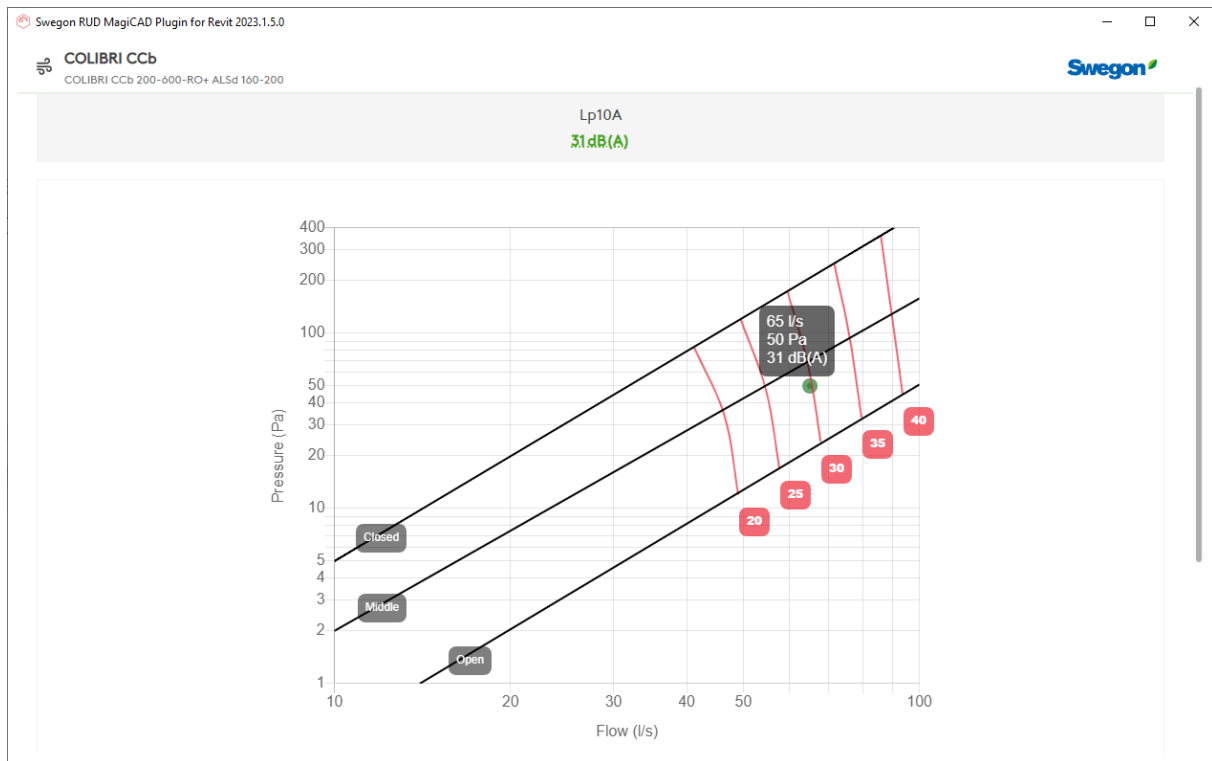
COLIBRI CCB
COLIBRI CCB 200-600-RO+ ALSd 160-200

Swegon

Input			
Room temperature	24.0	--	°C
Supply air temperature	18.0	--	°C
Product			
Primary airflow, q _p			65.0 l/s
Sound Pressure Level, L _{p10A}			31 dB(A)
Sound, L _p			30 dB(A)
Total pressure drop, P _t			50.0 Pa
Commissioning pressure, P _i			15.0 Pa
K-Factor, air			16.80
Min. distance to wall			0.50 m
Min. distance between products			4.15 m
Cooling/heating			
Capacity, total	468	--	W
Temperature difference	6.0	--	K
Throw length	2.22	--	m

3.3 Product Sound Calculation

Product sound calculation command works in similar way as Product calculation command. Once the product has been selected, the sound calculation view is opened in RUD:

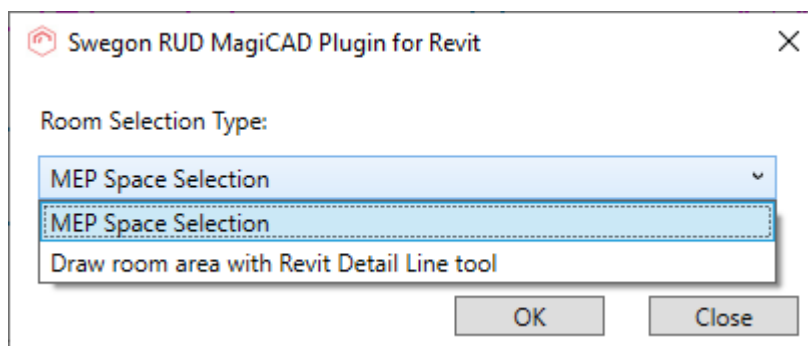


3.4 Open Room

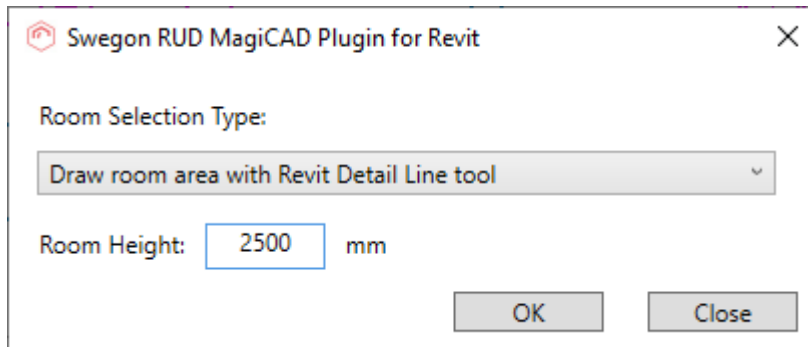
Open Room command allows user to select the MEP space or room area from Revit project and export the room geometry to RUD. User can add products to the room in RUD and take advantage of room designer functionalities in RUD. Once the ventilation design for the room is ready, user can import the products to Revit project.

Follow these steps to use the Open Room command:

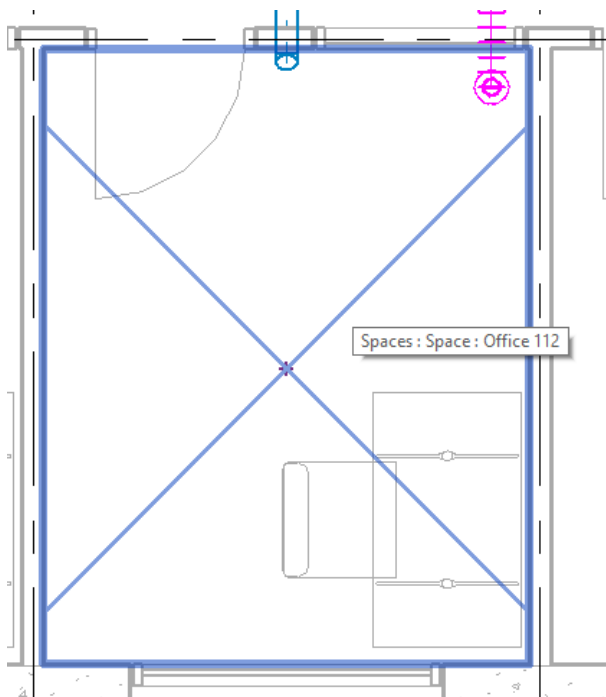
1. Click Open Room -command from the plugin ribbon panel.
2. Following view is opened:



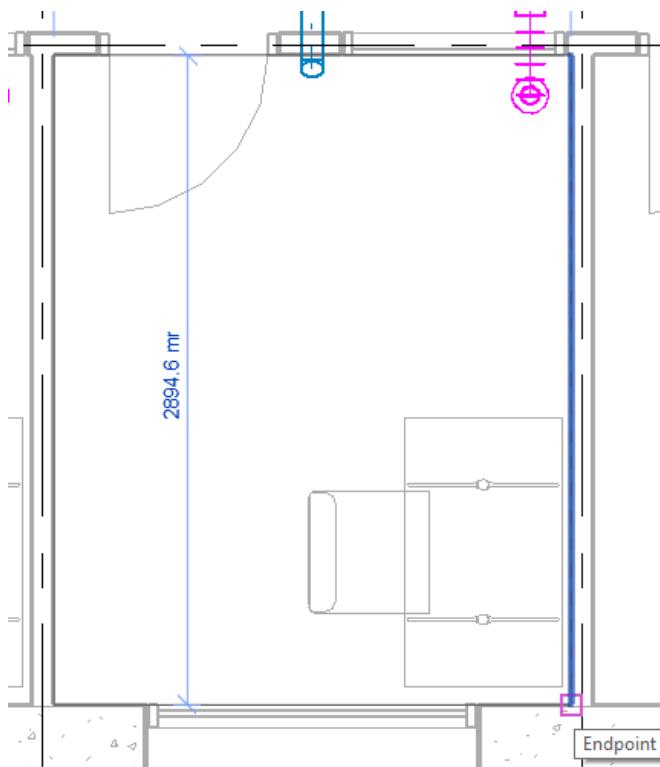
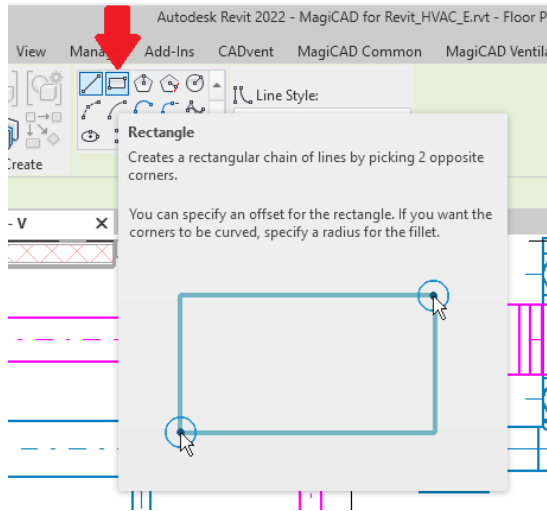
From the view user can choose how to select the room area from the project. Recommended way to select the room area is to use the MEP space selection. If MEP Spaces have not been defined in Revit project, user can use Revit's detail line tool for showing the room borders. If user selects to show the room borders with detail line tool, user needs to set the height of the room from this view first:



- Once OK-button is clicked, user is asked to select the room area. MEP space selection option is shown below:

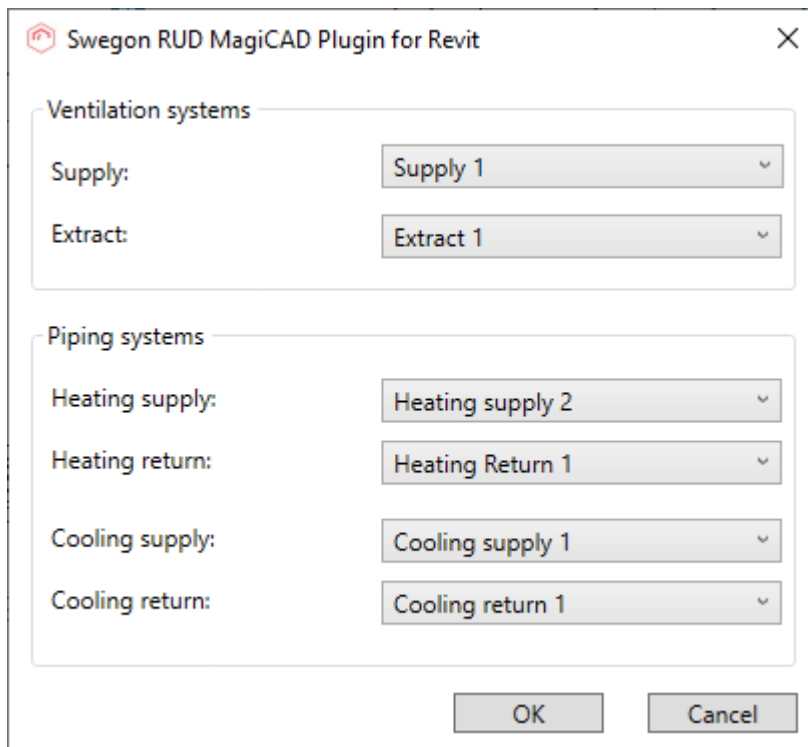


In case Detail line option was chosen, user shows the room borders with it. Detail line tool is started automatically by the plugin. It is recommended to use the rectangle tool to show the room borders, but also line tool can be used.



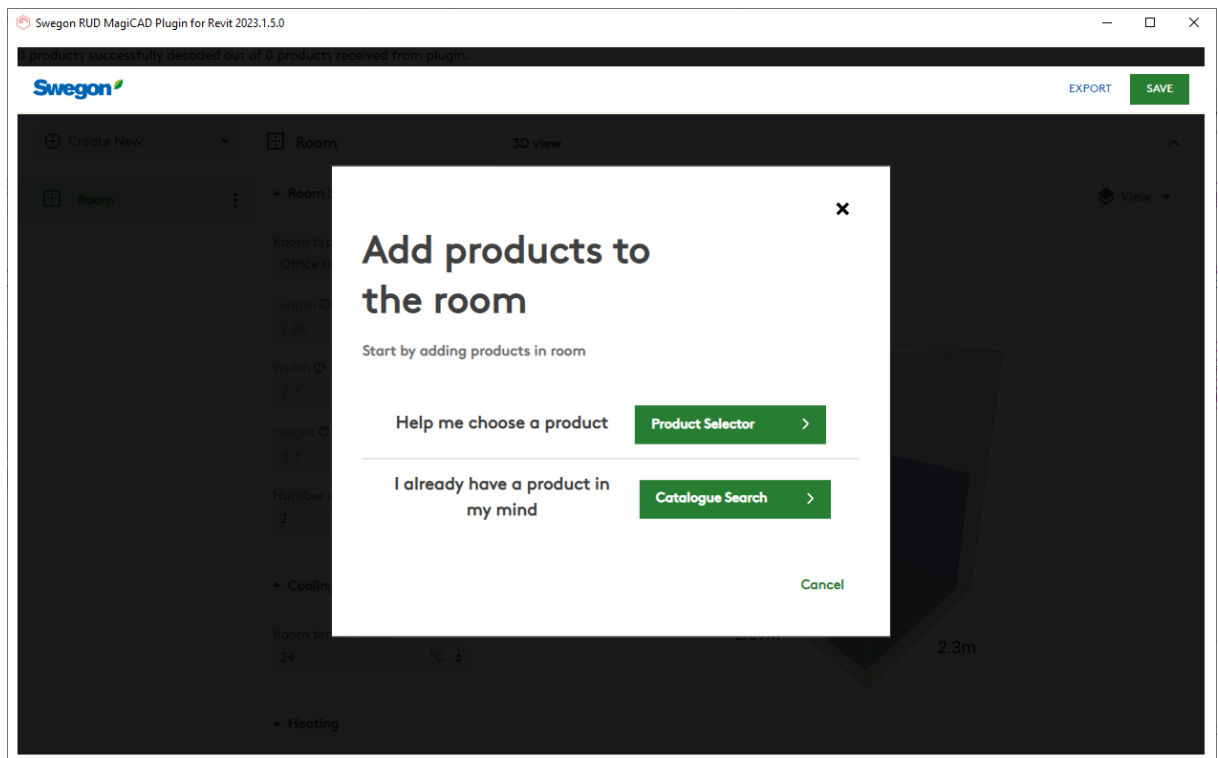
Once user has shown the area with detail line tool, he/she needs click Esc 2 time in order to complete the selection.

4. Next user is asked to make system selections used in the room:

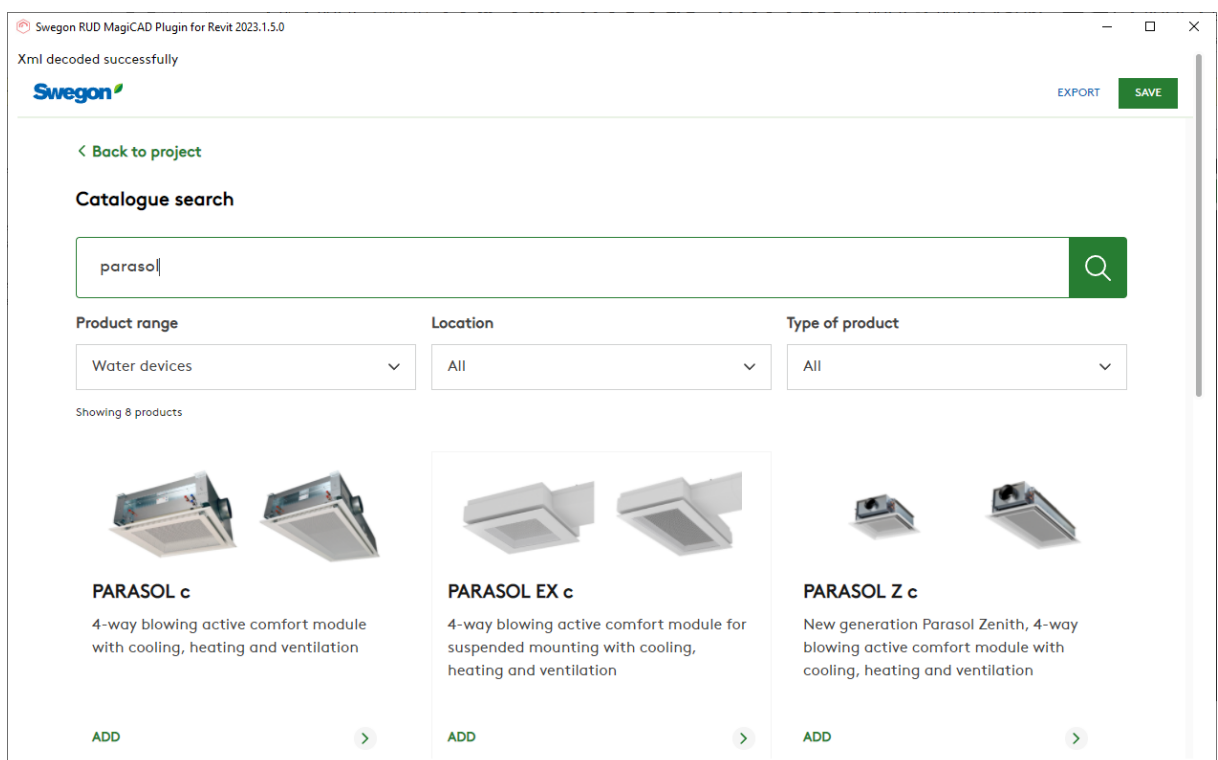


If there were already Swegon products in the room, the system selections will be inherited from the products. In this particular example case, there was no products in the room yet, so user first proceeds by making required system selections and then clicks OK.

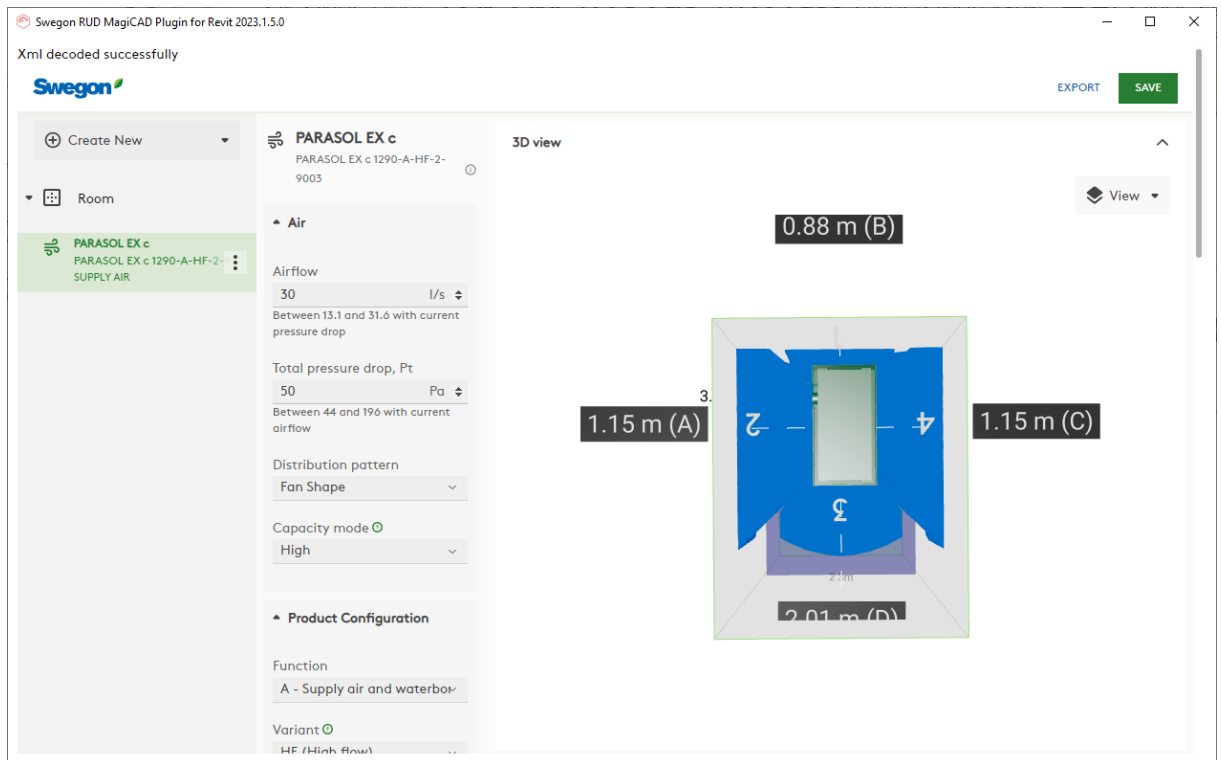
5. Swegon RUD is opened and as there was no products in the room yet, user is directed to select products to the room:



6. User proceeds by selecting wanted product to the room:

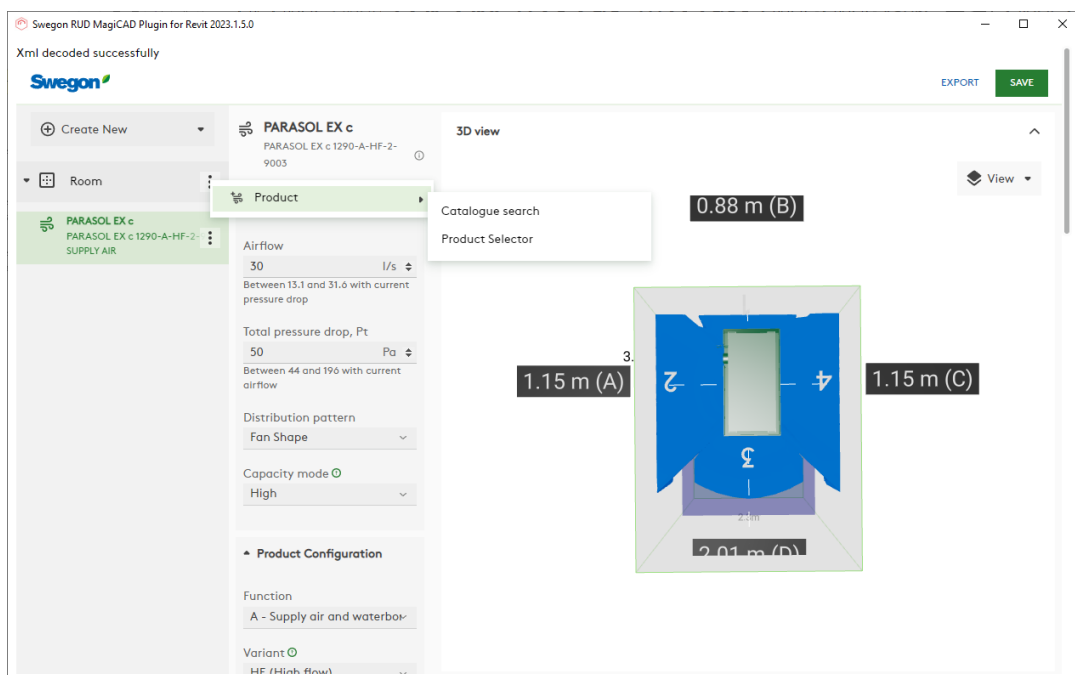


7. Room is now loaded to RUD and selected product is placed to the room:



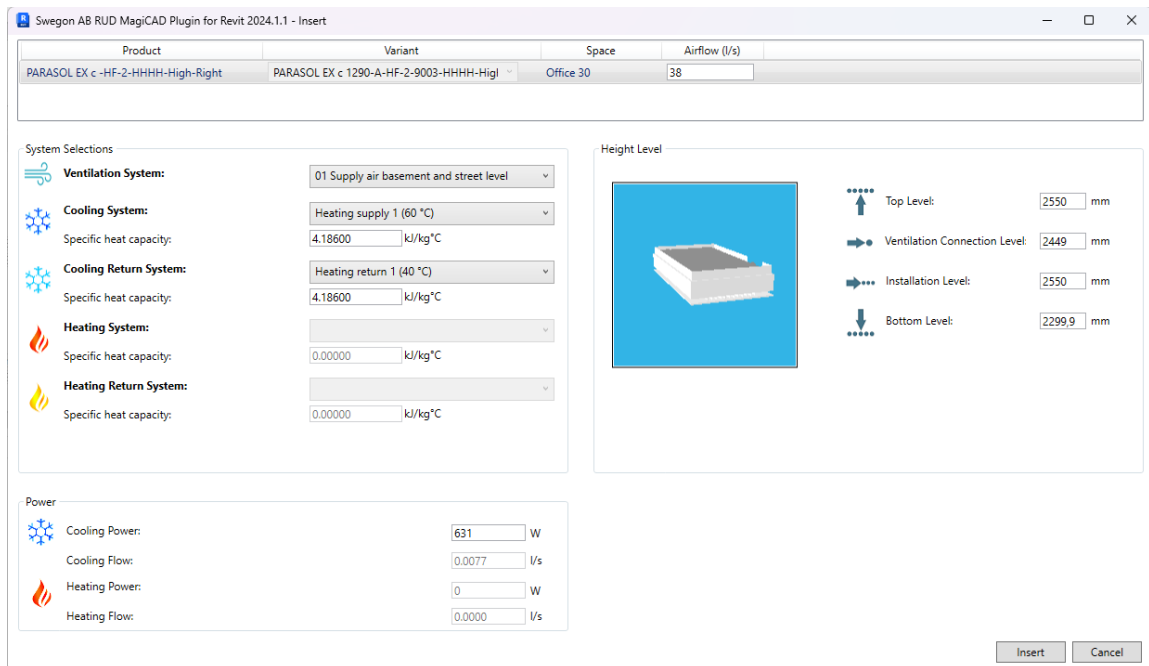
User can now make wanted modifications and configurations to the product placed to the room, such as change airflow, modify the size of the product, or move the product to wanted position.

8. Next user could proceed by adding another product to the room:



In this example case, no more are added, so user proceeds by clicking the “Save” -button which sends the modifications made in RUD back to Revit.

9. Insert Products view from the plugin is opened:



Swegon AB RUD MagiCAD Plugin for Revit 2024.1.1 - Insert

Product	Variant	Space	Airflow (l/s)
PARASOL EX c -HF-2-HHHH-High-Right	PARASOL EX c 1290-A-HF-2-9003-HHHH-High-Right	Office 30	38

System Selections

- Ventilation System:** 01 Supply air basement and street level
- Cooling System:** Heating supply 1 (60 °C)
Specific heat capacity: 4.18600 kJ/kg°C
- Cooling Return System:** Heating return 1 (40 °C)
Specific heat capacity: 4.18600 kJ/kg°C
- Heating System:**
Specific heat capacity: 0.00000 kJ/kg°C
- Heating Return System:**
Specific heat capacity: 0.00000 kJ/kg°C

Power

- Cooling Power:** 631 W
- Cooling Flow:** 0.0077 l/s
- Heating Power:** 0 W
- Heating Flow:** 0.0000 l/s

Height Level

Top Level: 2550 mm

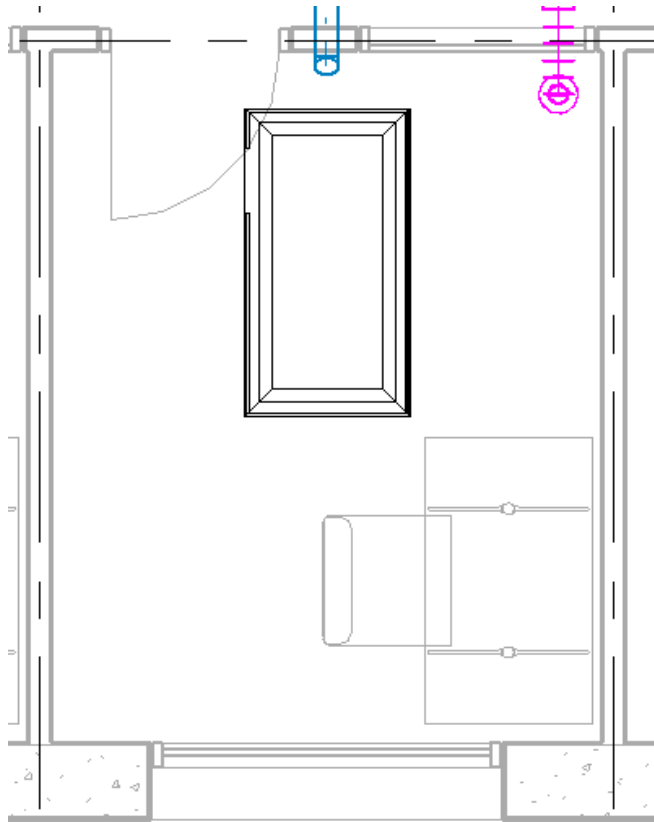
Ventilation Connection Level: 2449 mm

Installation Level: 2550 mm

Bottom Level: 2299.9 mm

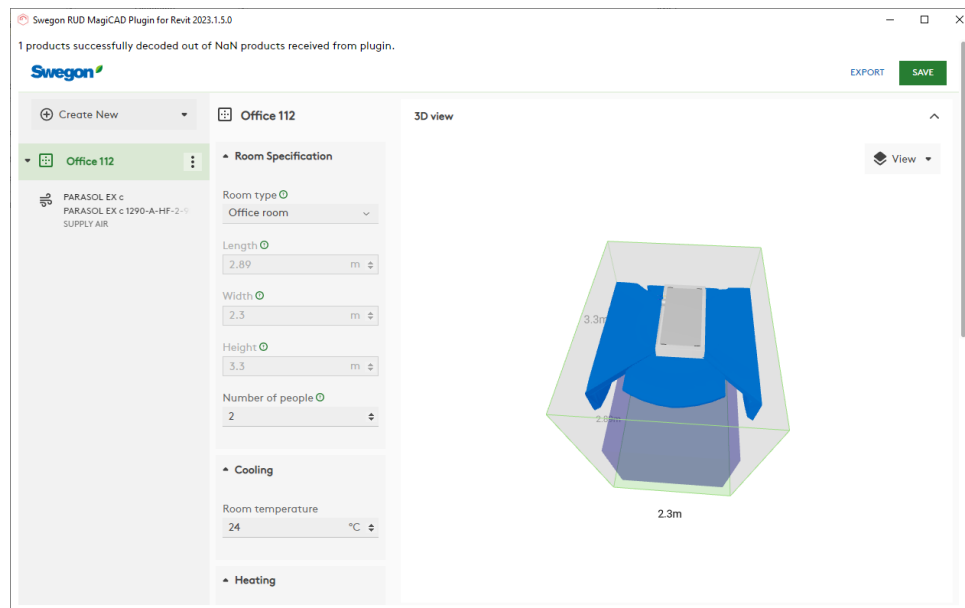
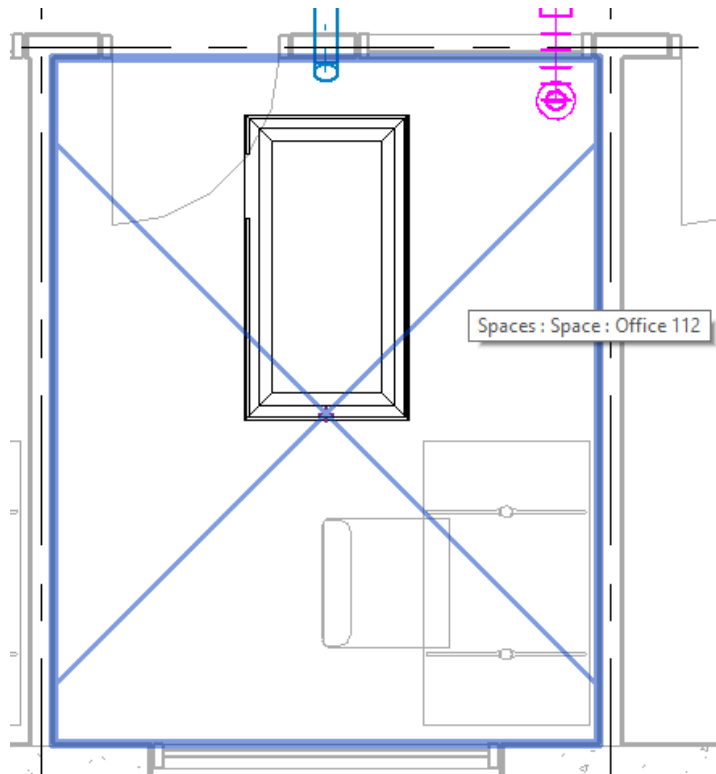
Buttons: Insert, Cancel

User proceeds by setting the user code and then clicks the “Insert” -button in order to place the product(s) to the room in Revit. Notice that the height level as well as the position of the product is automatically set based on the position that was defined in RUD:

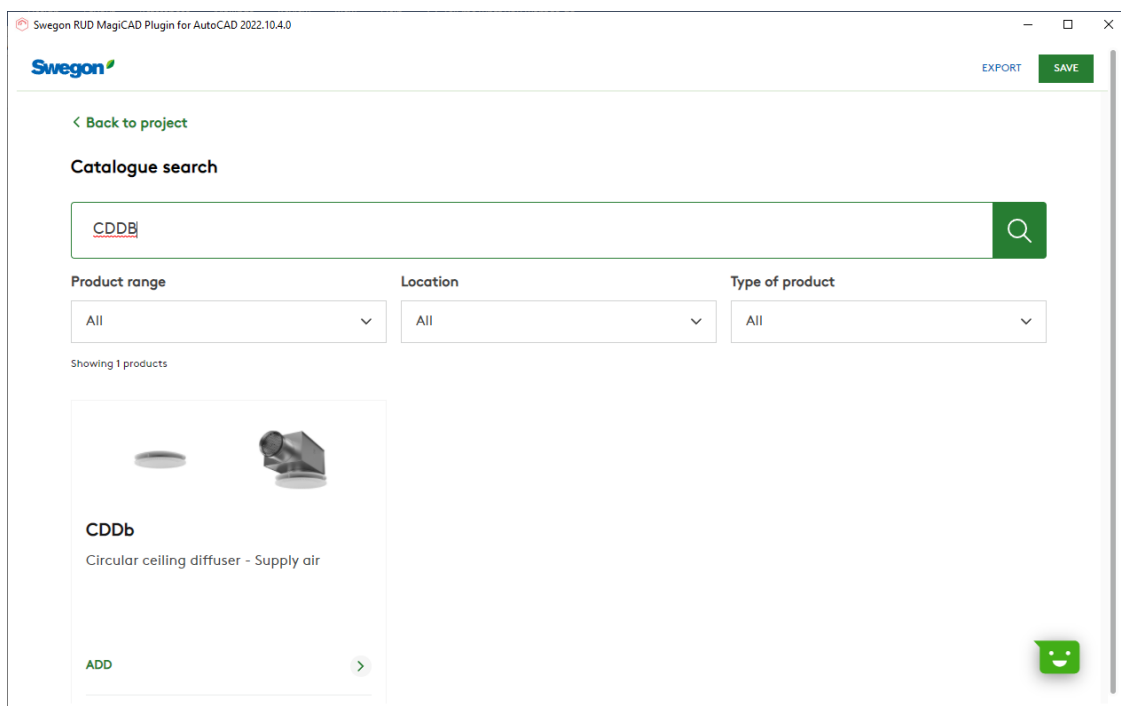
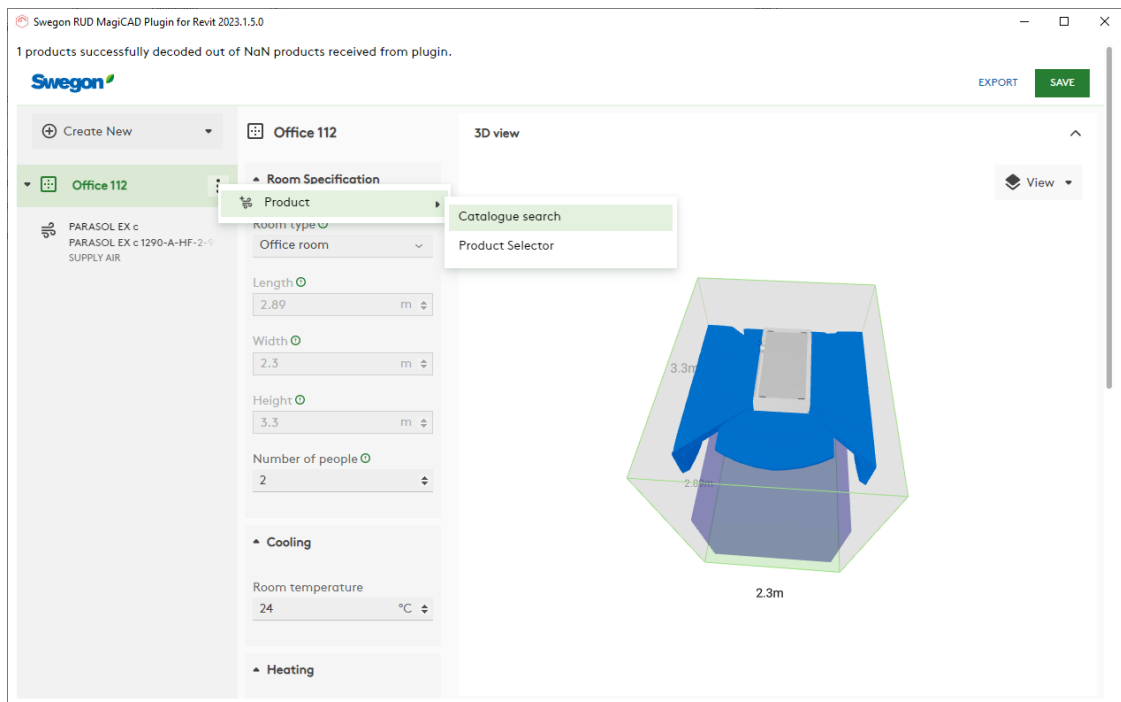


The command is now completed.

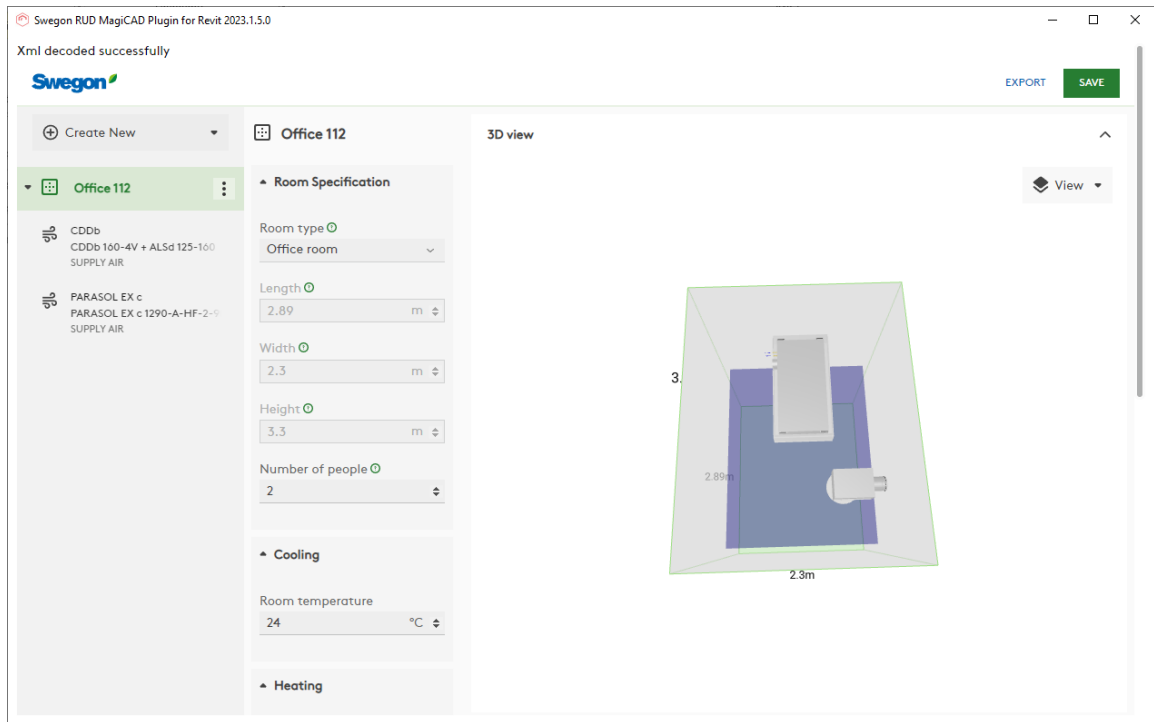
10. User can re-open the room in RUD any time he/she wants with Open Room command. When the room is now selected again, also the existing products in the room are recognized and can be modified in RUD (Notice that also the Swegon products that have been inserted from MagiCAD for Revit product database are recognized by the plugin):



11. User can now add more products to the room as well if needed. In this example case we'll and add one more product to the room:

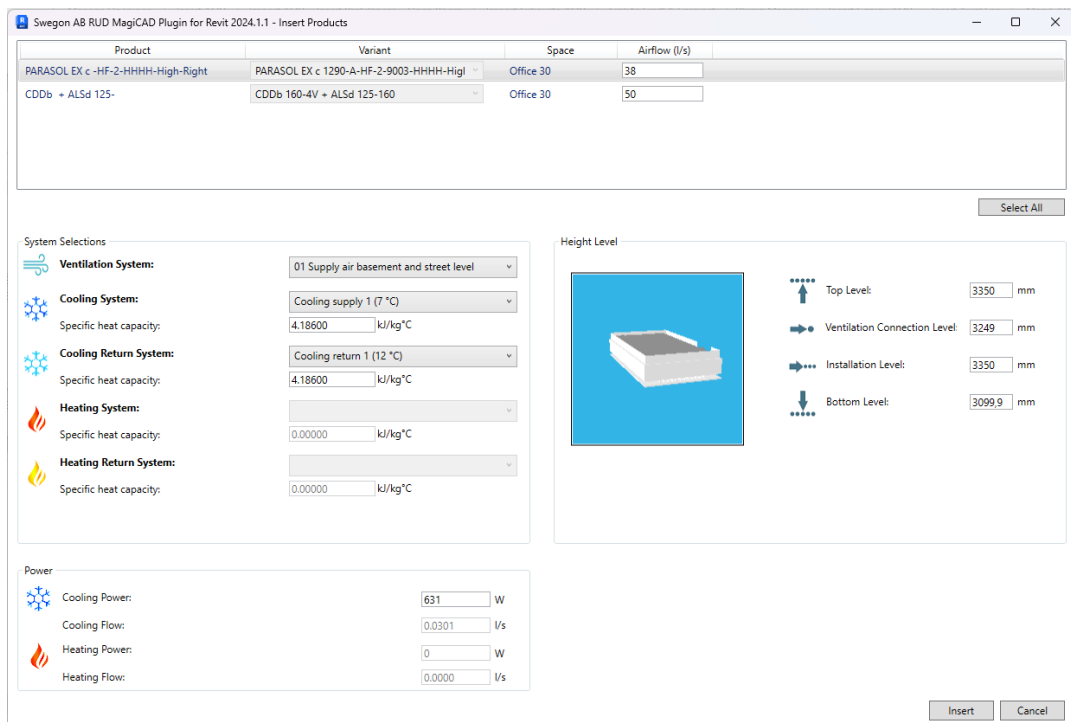


New product placed to the room (isolevel set to off -mode).

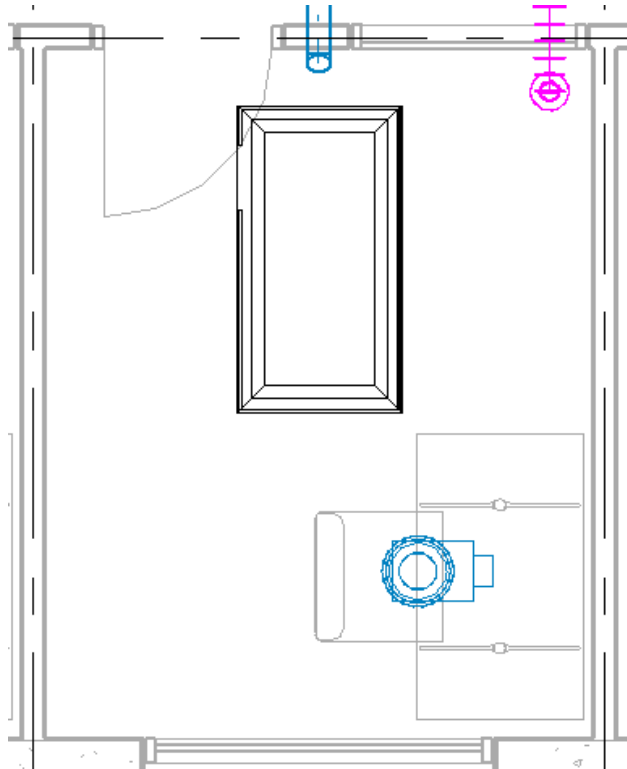


Once user has finished modified the room he/she clicks the “save” -button in order to send the modifications back to Revit.

12. Insert products view is opened by the plugin:



Both products are listed in the view. Existing PARASOL EX will only be updated and new CDDb will be added to the room to position specified in RUD:

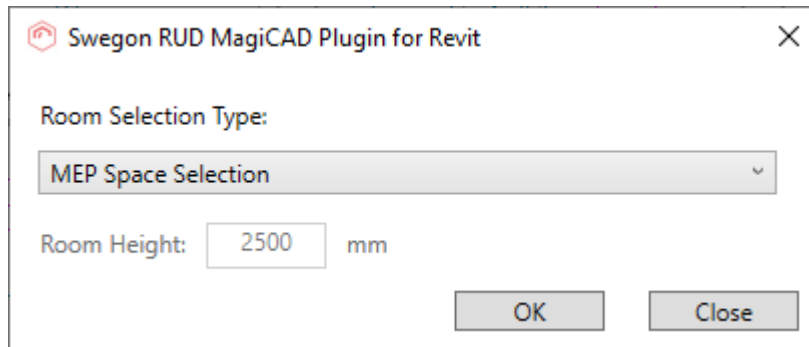


3.5 View Isolevel

View Isolevel -command allows user to select the room area from Revit project and view the isolevel in that room in RUD.

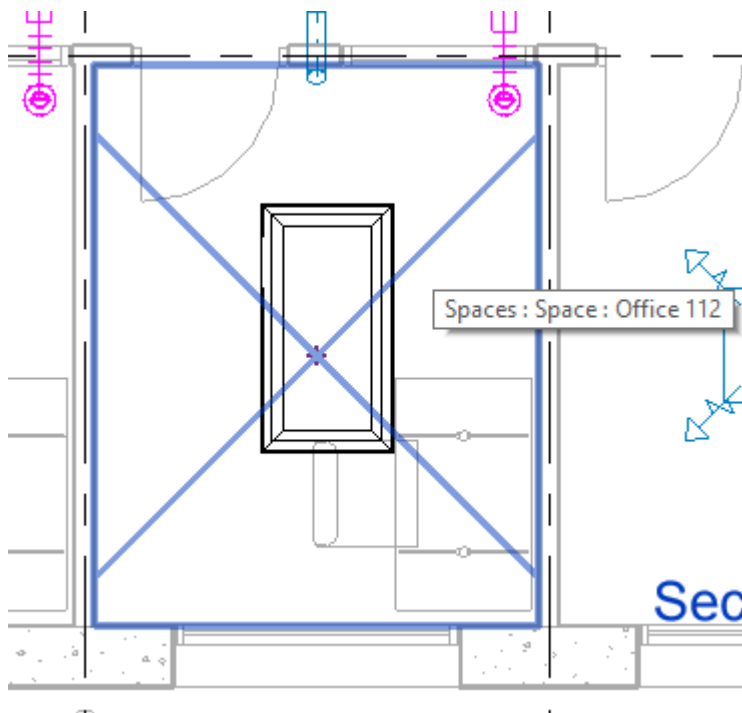
Follow these steps to use the View Isolevel -command:

1. Click View Isolevel -command from the plugin ribbon panel.
2. Following view is opened:



From the view user can choose how to select the room area from the project. Recommended way to select the room area is to use the MEP space selection. If MEP Spaces have not been defined in Revit project, user can use Revit's detail line tool for showing the room borders.

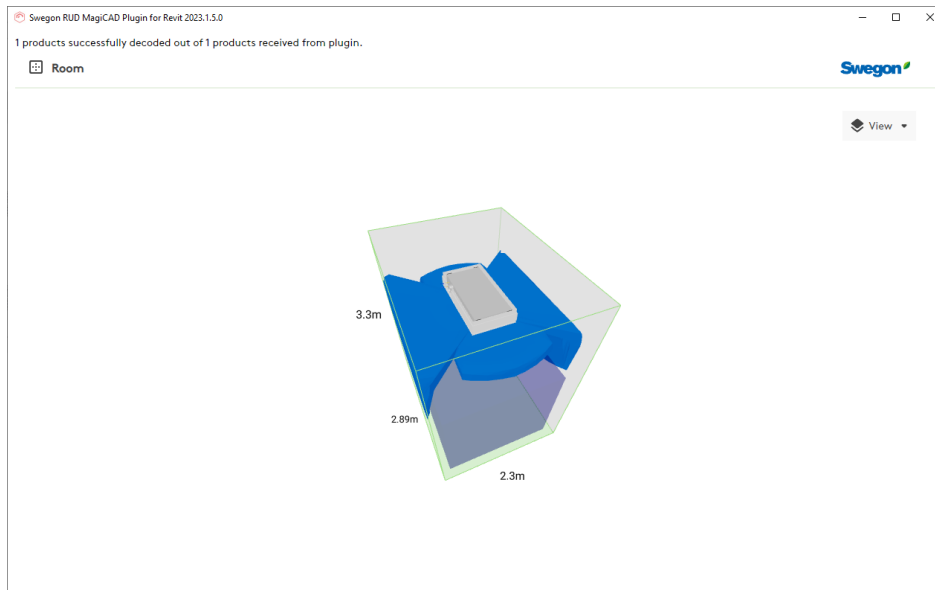
- Once OK-button is clicked, user is asked to select the room area:



- Next user is asked to make system selections used in the room:

If there were already Swegon products in the room, the system selections will be inherited from the products.

- Swegon RUD is opened allowing user to view the isolevel. Notice that this command is view only. Open Room command should be used for making modifications.

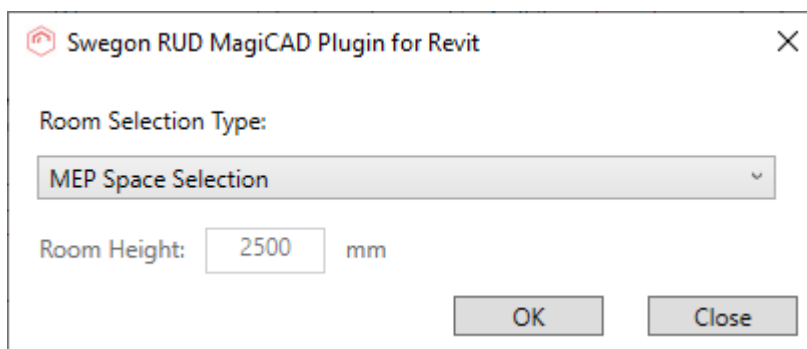


3.6 Room Calculation

Room Calculation -command allows user to select the room area from Revit project and view the the calculation results in RUD.

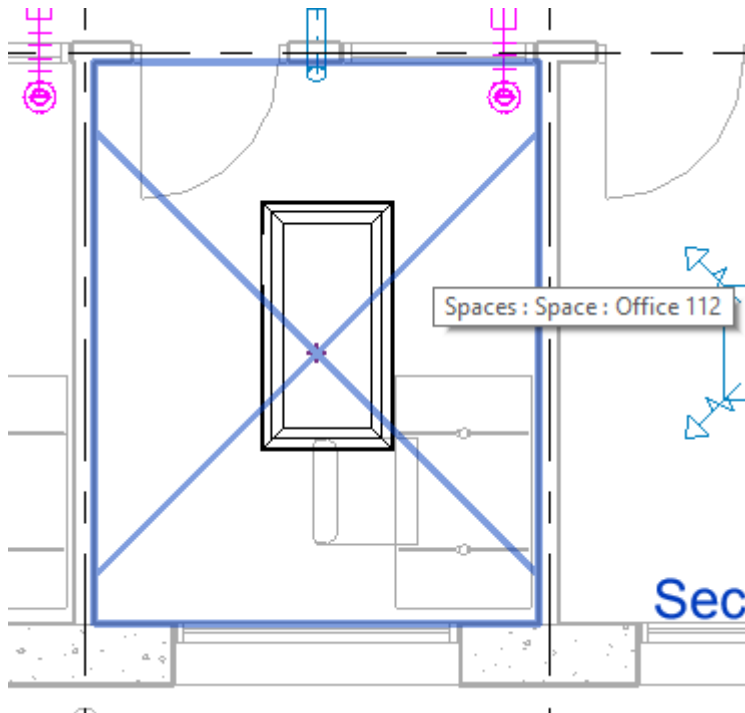
Follow these steps to use the Room Calculation -command:

1. Click Room Calculation -command from the plugin ribbon panel.
2. Following view is opened:



From the view user can choose how to select the room area from the project. Recommended way to select the room area is to use the MEP space selection. If MEP Spaces have not been defined in Revit project, user can use Revit's detail line tool for showing the room borders.

3. Once OK-button is clicked, user is asked to select the room area:



6. Next user is asked to make system selections used in the room:

If there were already Swegon products in the room, the system selections will be inherited from the products.

7. Swegon RUD is opened allowing user to view the room calculation results:

Swegon RUD MagiCAD Plugin for Revit 2023.1.5.0

Room

Swegon

Input

Room typeOffice room

Room size2.9 X 2.3 x 3.3 m

Number of people2

Room temperature cooling24.0 °C

Room temperature heating22.0 °C

Room

Area, floor6.66 m²

Volume21.97 m³

Sound level room, Lp24 dB(A)

Airflow/area4.5 l/s/m²

CO2 value733 ppm

CO2 emission36 l/h

Room attenuation3 dB

Air turnover rate4.9 /h

Equivalent sound absorption area7.14 m²

Total supply airflow30.0 l/s

Cooling/heating

Capacity, air216 -- W

Capacity, water559 -- W

Capacity, total775 -- W

3.7 About

About command shows the version number of the RUD / plugin:

